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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,064	05/23/2001	Dale K. Bell	60130-1113/01MRA0253	1970

26096 7590 09/08/2003

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EXAMINER

ECHOLS, PERCY W

ART UNIT	PAPER NUMBER
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3726

DATE MAILED: 09/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/864,064

Applicant(s)

BELL, DALE K.

Examiner

P. W. Echols

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 10-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art set forth in the specification in view of Tagawa et al (5,056,581).

The prior art set forth at page 1 of the specification teaches that it was known to use fasteners to connect a forged ring gear to a cast differential casing made of steel or ductile iron. Tagawa et al teach forming a ring with forged projections and casting a housing to the ring. It would have been obvious to one of ordinary skill to modify the process of the prior art to substitute the casting of the housing to the ring gear to eliminate the fasteners and to quickly attach the gear to the housing. The limitations to machining the teeth or casing are considered to have been obvious matters of choice and within the skill of the ordinary artisan. It is noted that there is no disclosure of the machining causing any new or unexpected results. The specification teaches at page 5, lines 14-15 that it was known to induction harden gear teeth. Official Notice is taken of near-net forging as a process for reducing the need for subsequent machining. It would have been obvious to near net forge the ring gear to reduce machining.

3. Applicant's arguments filed 6/12/03 have been fully considered but they are not persuasive. Applicant argues that there is no mention of fasteners in the Tagawa reference and that the examiner therefore cannot argue that the APA cannot be modified to eliminate fasteners. The examiner contends that an explicit teaching is not required and that upon observation of Tagawa one of ordinary skill would have

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recognized that fasteners were not used to attach the housing and ring when the housing was cast on the ring and would have been motivated to eliminate the use of fasteners in the APA.

Applicant argues that the examiner's argument that the machinings set forth in claim 7-9 are obvious matters of choice is improper and sets forth why the procedure is desirable. The examiner contends that one of ordinary skill would be aware of the advantages of machining the housing and then the gear teeth and would know when choose such a sequence.

Applicants improperly state the examiner's position on near-net forging. The examiner took official notice of the advantages of precision forging. He did not take official notice of near-net forging of a ring gear.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to P. W. Echols whose telephone number is 703-308-1802. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Vidovich can be reached on 703-308-1513. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1802.



P. W. Echols
Primary Examiner
Art Unit 3726

pwe